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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Christian Pacha

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EXAMINER

NGUYEN, LONG T

ART UNIT

PAPER NUMBER

2816

MAIL DATE

DELIVERY MODE

06/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/598,811	Applicant(s) PACHA ET AL.	
	Examiner LONG NGUYEN	Art Unit 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-43 is/are pending in the application.
- 4a) Of the above claim(s) 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-24 and 26-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/19/07</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of specie III, Figure 5 in the reply filed on 3/17/09 is acknowledged. Applicant indicates that claims 21-24 and 26-43 are readable on the elected specie III, Figure 5.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the control unit/means (to control the clock pulse field effect transistor, the logic field effect transistor and the feedback field effect transistor) recited in claims 21 and 41-43 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 21-24 and 26-441 are objected to because of the following informalities:

Claims 21 and 41, “can be” should be changed to --is-- because “can” is not a positive recitation of the invention.

Claims 22-24 and 26-40 are objected to because they include the informalities of claim 21. Note that, “can be” also exists in some of these claims and thus also need to correct accordingly.

Appropriate correction is required.

4. Claims 34-40 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Note that claim 34 fails to further limit the pulse generator of claim 30. Claims 35-40 are objected to because they depend on claim 34, and thus they have the same defect. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 21-24 and 26-43 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which

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was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, the specification does not disclose the pulse generator including “a control unit/means configured to control the clock pulse field effect transistor, the logic field effect transistor and the feedback field effect transistor such that, to generate the input signal, the clock pulse field effect transistor is chronologically activated after the logic field effect transistor and the feedback field effect transistor to generate a flip-flop signal” recited in the independent claims 21 and 41-43.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 21-24 and 26-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 21, “source/drain” is indefinite because it is not clear if applicant want refer to the source, or applicant wants to refer to the drain. Also, “a flip flop signal” on line 16 is unclear antecedent basis since it is not clear if it is the same as the input signal recited earlier in the claim. Clarification and/or appropriate correction is requested. Note that the same problem “source/drain” also exists in claims 22-24, 31 and 32, 37-39. Claims 21-24 and 26-40 are indefinite because they include the indefinite problem of claim 21.

For claim 30, the recitation “a second signal path of additional field effect transistors which has the same circuit as the first signal path” is indefinite because the structure connections for these transistors are not clearly defined, and it is also not clear what are the additional

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transistors. It is requested the claim to be defined by specifically spell out what the transistors the circuitry further comprising. Clarification and/or appropriate correction is requested.

Also, in claim 34, the recitation regarding “a flip flop circuit” is indefinite because it is not clear whether it is the same as the “flip flop circuit” recited earlier in claim 21. Clarification and/or appropriate correction is requested. Note that “flip flop circuit” in claims 35, 36 and 40 are indefinite for the same reason as discussed.

Claims 35-40 are also indefinite because they include the indefiniteness of claim 34.

Also, for claim 35, “and/or” is indefinite because it is not clear whether it refers to “and”, or it refers to “or”. Clarification and/or appropriate correction is requested.

Also, for claims 37-40, the recitation “further comprising” causes the claims to be indefinite because it is not clear which part of the circuitry further comprising the recited elements in those claims are part, i.e., it is not clear if the circuit arrangement including the recited elements in claims 37-40 in addition to other elements already recited in claim 36 (for claims 37-39) or claim 34 (for claim 40). Clarification and/or appropriate correction is requested.

Also, for claim 38, “the complementary bypass field effect transistor” lacks clear antecedent basis it is not clear where this transistor comes from. Clarification and/or appropriate correction is requested.

Also, for claim 40, the recitation “a fourth signal path of additional field effect transistors, which has the same circuit as a third signal path formed from the field effect transistors of the flip-flop transistors” is indefinite because it is not clear which transistors (or

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how many transistors) are required in the third and fourth signal paths, and it is also not clear how the transistors being connected. Clarification and/or appropriate correction is requested.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 21-23, 26-28, 30-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (USP 6,486,719).

Insofar as understood in claims 21-23, 26-28, 30-33 and 41-43, Figure 9 of Kim teaches a pulse generator (41d) for generating an input signal (SB, RB) to a flip-flop circuit (see Figure 4) from a clock signal (CLK) and from a data signal (D), which includes: a clock pulse field effect transistor (NA); a logic field effect transistor (NB); a first electrical reference potential (VSS), and a feedback transistor (N1) with the connections as recited in the claim. Because the pulse generator in Figure 9 of Kim teaches the structure of the transistors (NA, NB and N1) are substantially identical to applicant's invention, so similar as applicant's invention, the pulses generator of Kim also meets the limitations "a control unit/means configured to control the clock pulse field effect transistor, the logic field effect transistor and the feedback field effect transistor such that, to generate the input signal, the clock pulse field effect transistor is chronologically activated after the logic field effect transistor and the feedback field effect transistor to generate a flip-flop signal" of claim 21. For claim 22, Figure 9 shows an additional clock pulse field effect

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transistor (P0) and a second electrical reference potential (VDD). For claim 23, Figure 9 shows an additional feedback field effect transistor (P1). For claims 30-33, Figure 9 shows the clock pulse FET (NA), the logic FET (NB) and the feedback FET (N1) form a first signal path (in 411d), and wherein the pulse generator including a second signal path (in 412d) of additional transistors (NC, ND, and N3) which has the same circuit as the first signal path.

For claims 34-39, Figure 4 shows a circuit arrangement including a pulse generator (41, wherein the detail of 41 is shown in Figure 9 and is discussed in claims 21-23, 26-28 and 30-33 above), and a flip-flop (43). Note that the flip-flop circuit has storage FETs and switching FETs (i.e., the transistors that are used to form block 43 in Figure 4), wherein a first switching transistor would be the P-channel transistor (inside NAND gate 431) that has its gate receiving signal SB, and a second switching transistor would be the N-channel transistor (inside NAND gate 432) that has its gate receiving signal RB, a protective FET would be the N-channel transistor (inside NAND 431) that has its gate receiving signal SB.

Insofar as understood in claim 40, the flip-flop (43) of Kim in Figure 4 includes third and fourth signal paths formed by transistors (the transistors formed the NAND gates 431 and 432).

Allowable Subject Matter

11. Claims 24 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if amended to overcome the rejections under 35 U.S.C. 112 above.

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Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directly to Examiner Long Nguyen whose telephone number is (571) 272-1753. The Examiner can normally be reached on Monday to Thursday from 8:00am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan, can be reached at (571) 272-1988. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Long Nguyen/
Primary Examiner
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